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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/554,705

10/27/2005

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EXAMINER

BASTIANELLI, JOHN

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/554,705	Applicant(s) TAGUCHI ET AL.
	Examiner John Bastianelli	Art Unit 3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/27/05, 7/13/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cylinder valve, flow controller, and line filter must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The disclosure is objected to because of the following informalities: The section "Brief Descript..." should be before "Detailed Descript...". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5 and 7-9 do not make sense as the apparatus is not (it appears that it should be "has" instead of "is") a cylinder valve, pressure regulator, flow controller, line filter or a line valve.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Borland et al. US 5,474,104.

Borland discloses an apparatus having a sealing part and/or a gas contacting part 66 or 42, which has a halogen-free resin and a sealing part, which comprises a sealing part body 66 or 42 and an abutting material 70 or 54 capable of imparting sealing property by abutting against said sealing part body, wherein said sealing part body has a halogen-free resin, and at least the abutting part against the sealing part body of said abutting material comprises a stainless steel. The halogen-free resin is a polyamide

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resin which inherently has a Rockwell surface hardness of R30-R150, it has a cylinder valve 60 or 40, a pressure regulator 40, a flow controller 60 or 40, a line filter 34, and a line valve 60 or 40. The method is seen as practiced by the apparatus as it does not deteriorate the gas purity.

7. Claims 1-2, 4-7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Beaver et al. US 5,149,105.

Beaver discloses an apparatus having a sealing part and/or a gas contacting part 56, which has a halogen-free resin and a sealing part, which comprises a sealing part body 56 and an abutting material 22 capable of imparting sealing property by abutting against said sealing part body, wherein said sealing part body has a halogen-free resin, and at least the abutting part against the sealing part body of said abutting material comprises a stainless steel, a cobalt alloy, a highly corrosion-resistant nickel alloy or a ceramic selected from the group consisting of alumina, aluminum nitride and silicon carbide (col. 3, line 66-col. 4, line 10). The halogen-free resin is selected from the group consisting of a polyolefin resin, a polyamide resin, a phenol resin, a xylene resin, a polyphenylene sulfide resin, a polyether ether ketone resin, a polyimide resin and a polyethylene terephthalate resin. The halogen-free resin is a resin which inherently has a Rockwell surface hardness of R30-R150, it has a cylinder valve, a pressure regulator 40, a flow controller, and a line valve. The method is seen as practiced by the apparatus and is used to for flow of hazardous/corrosive materials which ammonia is.

8. Claims 1, 3/1, 4/1, 5/1, 6/1, 7/1, 9/1, and 10/1 are rejected under 35 U.S.C. 102(b) as being anticipated by Yocum US 3,438,391.

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Yocum discloses an apparatus having a sealing part and/or a gas contacting part 13, which has a halogen-free resin and a sealing part, which comprises a sealing part body 13 and an abutting material 9 capable of imparting sealing property by abutting against said sealing part body, wherein said sealing part body has a halogen-free resin, and at least the abutting part against the sealing part body of said abutting material comprises a polished steel. The halogen-free resin is a polyamide resin which has a Rockwell surface hardness of R30-R150 (R10-R125), it has a cylinder valve 12, a pressure regulator 12, a flow controller 12, and a line valve 12. The method is seen as practiced by the apparatus that does not deteriorate the gas purity.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 3/2, 4/2, 5/2, 6/2, 7/2, 9/2, and 10/2 are rejected under 35 U.S.C.

103(a) as being unpatentable over Yocum US 3,438,391 in view of Borland et al. US 5,474,104.

Yocum lacks the abutting part made of stainless steel. Borland discloses the abutting part made of stainless steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the polished steel of Yocum out of

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stainless steel as disclosed by Borland in order to make the valve more corrosion resistant.

11. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Borland et al. US 5,474,104.

Beaver lacks the halogen-free resin made of polyamide. Borland discloses the halogen-free resin made of polyamide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the resin of Beaver out of halogen-free resin made of polyamide as disclosed by Borland in order to make the valve more corrosion resistant. Beaver lacks a line filter. Borland discloses a line filter 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the line filter as disclosed by Borland in the valve of Beaver in order to remove contaminants from the fluid.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borland et al. US 5,474,104 in view of Floh et al. US 2004/0045605.

Borland lacks ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the fluid of Borland with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaver et al. US 5,149,105 in view of Floh et al. US 2004/0045605.

Beaver discloses flow of hazardous/corrosive fluids but lacks specifically ammonia gas as the fluid. Floh discloses the fluid being ammonia gas. It would have been obvious

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to one having ordinary skill in the art at the time the invention was made to replace the fluid of Borland with ammonia gas as disclosed by Floh in order to be able to safely valve a variety of fluids.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mamy, Ishida, Wass, Friend, Whisenhunt, Slemmons, and Welty disclose sealing and abutting parts with specific materials. Corydon and Davis disclose ammonia as the fluid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Bastianelli
Primary Examiner
Art Unit 3753

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